

Avtex Fibers

Front Royal, Warren County, Virginia

Superfund Program Site Fact Sheet

Type of Facility: Former Rayon Manufacturing Operation

Contaminants: Carbon Disulfides, Phenols, Arsenic, Cadmium, Lead, Sulfides, Polychlorinated Biphenyls (PCBs)

Funding: PRP Lead

Site Description and History

Avtex Fibers is a 440-acre site in Front Royal, Virginia. The former rayon manufacturing plant operated under various owners, including American Viscose from 1940 to 1963, the FMC Corporation from 1963 to 1976, and Avtex Fibers, Incorporated until 1989 when the plant closed and Avtex declared bankruptcy. For short periods, the plant also produced polyester and polypropylene. Operations ceased on November 10, 1989, when the State Water Control Board revoked a water discharge permit.

In 1982, carbon disulfide was identified in groundwater samples from residential wells across the Shenandoah River from the plant. This finding initiated several site investigations that led to interim remedial measures implemented by Avtex in 1983 and 1984 to address the identified contamination. These measures included the purchase of some properties and groundwater pumping and treatment program for contaminant recovery and containment. The site was listed on the National Priorities List (NPL) on June 1, 1986.

The plant held a National Pollutant Discharge Elimination System (NPDES) permit to discharge its effluent into the Shenandoah River. From 1987 to 1988, many NPDES permit violations occurred. In 1989, PCB contamination in the Shenandoah River was linked to Avtex and the plant's NPDES permit was revoked. Following this action, the Avtex Fibers plant shut down.

On February 1990, EPA issued a Unilateral Administrative order (UAO) to FMC, including requirements to operate the wastewater treatment plant to protect the Shenandoah River. In the fall of 1997 EPA initiated a Time-Critical Removal Action (TCRA) to remove approximately 20 acres of buildings which were rapidly deteriorating and causing potential health and environmental problems. EPA completed the demolition of the buildings in the fall of 1998. FMC agreed to take over remediation of the site at that point. The Consent Decree was signed and became effective in October 1999, which

makes the site a PRP lead. FMC now conducts site activities under the Consent Decree, not UAOs.

Site ownership was transferred to the Economic Development Authority of Front Royal and Warren County (EDA) in the spring of 2000.

Threats and Contaminants

The groundwater is contaminated with carbon disulfide, phenol, sodium, and heavy metals, including lead, arsenic, and cadmium from waste deposited in the viscose disposal basins. The soil is contaminated with carbon disulfide, phenol, arsenic, lead, and PCBs. The Shenandoah River contains PCBs from the plant. Direct contact and/or ingestion of contaminated water or soil and dust inhalation from the site may threaten



Photo by Berry Wright

public health.

Current Site Status

Work currently being performed on all remediation activities involving the site is being implemented by the PRP, with EPA and VDEQ oversight. Those activities include:

TCRA Buildings: The PRP has sorted, processed, and disposed of the most of the demolition material generated from the 20 acre building demolition operation. Some piles

of fine fraction materials remain on site pending determination of its appropriate disposition.

NTCRA Buildings: In December 2001, EPA selected a response action to decontaminate the remaining buildings and remove remaining sewers. FMC began decontaminating remaining buildings in January 2002. As FMC works on cleanup, the Corp of Engineers is also onsite as a separate, non-superfund project, conducting asbestos abatement, other cleanup activities, and the demolition of the remaining building. FMC was conducting PCB abatement activities in the polymer building during the Winter 2002-2003, prior to its demolition by the Corps planned for the Spring 2003. The power plant will remain for future demolition.

NTCRA Basins Closure: Closure plans are complete and are being implemented to close the 5 sulfate basins, the WWTP (2 polishing ponds and emergency lagoon), the Fly Ash Basins, and the Fly Ash stockpile. A landscaping plan to return the area to a natural state has been developed. In September 2001, FMC hosted a workshop to develop and refine plant species selection and planting schedules for the closure basins. Experts from various agencies across the state participated.

OU-7 (ROD-5) Viscose Basins 9-11, groundwater and surface water: This unit is in the RI/FS stage. There is a plume of contamination associated with this phase of the project. A deep well investigation began in late Fall 2002 to further characterize the plume. This is anticipated to be the last ROD for the site.

OU-10 (ROD-4) Viscose Basins 1-8, the new landfill: This unit is near completion of the RI/FS phase of work. The ROD, to define the course of action for remediation, should be completed in 2003.

OU-8 (ROD-3) Areas B and C: In August of 2000, the areas B and C in the front of the site were taken to the public for review and comment. The ROD identified institutional controls with deed restrictions as the remedy. The requirements of the ROD are being implemented through a December 1999 Conservation Easement. These areas are within EDA's planned business park redevelopment.

Community Relations and Concerns

Prior to the signing of the Consent Decree 1999, EPA conducted traditional community relations. Several public workshops were held for the community and local officials after the site was listed on the NPL. Meetings were held to discuss field investigations and to discuss proposed response actions plans. With the plant shutdown, community relations activities increased. EPA opened a public information center. Fact sheets were sent out and site tours were been provided periodically as a means of updating the public on site progress. An EPA Technical Assistance Grant was awarded to a local group, the Friends of the Shenandoan River. A technical advisor was selected by the group to help them interpret site data. The grant ended in 1994.

In February 1999, EPA, VDEQ, FMC and the EDA began sponsoring a multi-stakeholders group (MSG) to facilitate public participation and input into the cleanup and redevelopment of Avtex. The MSG provides an interactive forum where a broad group of interested parties are updated on site activities and can consider site-related issues critical to the future of the area. MSG members include local officials, community members, environmental and business group representatives, and municipal planners. The last stakeholder group meeting was held in October 2001. In addition to the regular MSG meetings, EPA and FMC's contractors performed a door-to-door outreach to nearly 300 homes in June 2001. Through these community relations efforts, various parties were provided an opportunity to raise issues and concerns relative to the site.

Other public interest events have been held at the site. Open houses that provide informational displays on cleanup progress and future plans and site tours to interested parties were conducted in July 2001 and October 2002. In April 2002, local elementary school children helped plant trees on a closed basin.



Photo by Dave Gillispie

In addition to potential health and environmental risks, local resident concerns include odors coming from the site and their health impacts, concern that residential soils have not been tested, concern that sulfate waste located in the 100-year flood plain and adjacent to the River is being closed on-site, and concern that information in the administrative record is difficult to locate. Local officials and business group representatives have expressed concern with the length of time it takes to clean up a site and the desire to delist parcels of land from the Avtex Superfund site.

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